

CLAIMS

1 1. A light emitting fishing lure comprising:
2 a hollow body having an exterior, a distal end and a proximal end, the
3 proximal end terminating in an eyelet;
4 a hook coupled to said body;
5 a battery source;
6 a multiple emission color light source located within said body;
7 a printed circuit board controller for said light source that automatically varies
8 color emission from said light source; and
9 a light pipe in optical communication between said light source and the
10 exterior of said body.

1 2. The lure of claim 1 further comprising a phosphor on the exterior of
2 said body selected from the group consisting of an embedded particulate, a film, and
3 an appliqué.

1 3. The lure of claim 1 wherein said battery source is a button-type
2 battery.

1 4. The lure of claim 1 wherein said light source is a multiple color single
2 light emitting diode.

1 5. The lure of claim 4 wherein said multiple color single light emitting
2 diode has an ultraviolet emission.

1 6. The lure of claim 1 wherein said light source is a plurality of light
2 emitting diodes.

1 7. The lure of claim 6 wherein said plurality of light emitting diodes
2 comprises an ultraviolet light emitting diode.

1 8. The lure of claim 1 wherein said light pipe is embedded in said body.

1 9. The lure of claim 8 wherein said body is transparent or translucent and
2 functions as said light pipe.

1 10. The lure of claim 1 wherein said light pipe is a trailing fiber optic.

1 11. The lure of claim 10 wherein said light pipe is a plurality of fiber
2 optics emanating from the distal end of said body.

1 12. The lure of claim 1 further comprising a switch for selectively forming
2 an electrical circuit between said light source and said battery.

1 13. The lure of claim 12 wherein said switch is located within said body.

1 14. The lure of claim 12 wherein said switch is of a type selected from the
2 group consisting of: kinetic, motion detection, and electrical resistivity.

1 15. The lure of claim 12 wherein said switch is a kinetic switch.

1 16. The lure of claim 1 further comprising a transformerless voltage step-
2 up circuit intermediate between said battery and said light source.

1 17. The lure of claim 16 wherein said transformerless voltage step-up
2 circuit increases output voltage from said battery source by a factor of between 1.6
3 and 3.

1 18. A light emitting fishing lure comprising:
2 a hollow body having an exterior, a distal end and a proximal end, the
3 proximal end terminating in an eyelet decorated with phosphor;
4 a hook coupled to said body;
5 a battery source;
6 an ultraviolet light emitting diode light source located within said body;

7 a printed circuit board controller for said ultraviolet light emitting diode light
8 source to selectively activate said ultraviolet light emitting diode light source in a
9 time pulsed manner; and
10 a light pipe in optical communication between said light source and the
11 exterior of said body.

1 19. The lure of claim 18 further comprising a phosphor on the exterior of
2 said body selected from the group consisting of an embedded particulate, a film, and
3 an appliqué.

1 20. The lure of claim 18 wherein said light pipe is embedded in said body.

1 21. The lure of claim 18 wherein said light pipe is a trailing fiber optic.

1 22. The lure of claim 21 wherein said light pipe is a plurality of fiber
2 optics emanating from the distal end of said body.

1 23. The lure of claim 18 further comprising a switch for selectively
2 forming an electrical circuit between said light source and said battery.

1 24. The lure of claim 23 wherein said switch is located within said body.

1 25. The lure of claim 23 wherein said switch is of a type selected from the
2 group consisting of: kinetic, motion detection, and electrical resistivity.

1 26. The lure of claim 23 wherein said switch is a kinetic switch.

1 27. The lure of claim 18 further comprising a transformerless voltage step-
2 up circuit intermediate between said battery and said light source.

1 28. The lure of claim 27 wherein said transformerless voltage step-up
2 circuit increases output voltage from said battery source by a factor of between 1.6
3 and 3.

1 29. The lure of claim 18 wherein said ultraviolet light emitting diode is
2 gallium indium nitride.

1 30. The lure of claim 18 wherein said ultraviolet light emitting diode is
2 gallium nitride.

1 31. A method of charging a phosphorescent fishing lure comprising the
2 steps of:

3 sealing a battery powered ultraviolet light emitting diode within a fishing lure
4 having a phosphor thereon;
5 providing an optical path between said ultraviolet light emitting diode and
6 said phosphor; and
7 activating said ultraviolet light emitting diode to charge said phosphor.

1 32. The method of claim 31 wherein activation of said ultraviolet light
2 emitting diode is in a time pulsed manner.

1 33. The method of claim 32 wherein the time pulsed manner is on a time
2 scale comparable with a decay time of said phosphor.

1 34. The method of claim 31 wherein the optical path is via an optical fiber.

1 35. The method of claim 34 wherein said optical fiber is embedded in said
2 fishing lure.

1 36. The method of claim 34 wherein said optical fiber is a trailing optical
2 fiber.

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- 1 37. The method of claim 36 wherein said trailing optical fiber is a plurality
2 of fibers emanating from said fishing lure.